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HIV DRUG RESISTANCE DATABASE

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References

Author	Margot (2002)	SelectedGene	RT
Title	Genotypic and phenotypic analyses of HIV-1 in antiretroviral-experienced patients treated with tenofovir DF	SelectedType	Clinical
Citation	AIDS	NumIsolates	158

Aligned AA sequences	CompleteRx
If Multiple Clones, Show Consensus	VIEW ADDITIONAL DATA
VIEW ALIGNMENTS ALL	

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Patient	Isolate	Clone	GB#	NRTIs	NNRTIs	Mutations
MM-204236508	MM-2042365081			RTI	RTI	P4SP, D67N, T69D, K70R, K103NK, I135T, I178VI, Y181CY, T200AT, I202V, R211TK, T215F, K219Q, V245AT, I293V, V317A, Q334N, I375V, T377AT, T386I
MM-206436796	MM-2064367961			NRTI, Unknown	Unknown	K20R, I50T, V60I, D67N, K70R, L74VI, D121H, I135V, I142V, K166R, D177E, Y181C, M184V, T200A, E203D, D218E, K219E, E297K, F346C
MM-206736805	MM-2067368051			NRTI, Unknown	Unknown	M41L, K103N, V118I, S162A, Q207E, L210W, T215Y, L228R, N348I, R356K, G359S, K390R
MM-208736509	MM-2087365091			NRTI, Unknown	Unknown	V35I, D67N, K70R, Y115HY, D123E, I135L, D177E, M184V, K219Q, A272PA, K277RK, I293V, E297A, E312AE, Q334E, A371V, K390R
MM-208936677	MM-2089366771			NRTI, Unknown	Unknown	V35MK, T39A, E40DE, M41L, K103N, A158S, M184V, T200A, Q207N, R211K, T215Y, V245K, I293V, P294A, E297R, Q334L, G335S, G359S, A371V, K390R
MM-	MM-2100365881			NRTI, Unknown	Unknown	T27A, D67N, K70R, A98G,

210036588			Unknown		K103N, V108IV, V118I, I135T, M184V, R211K, T215F, K219Q, K223TK, V245M, I293V, E297K, L301I, I329L, R358K, G359SG, T386I, A400I
MM-210536601	MM-2105366011		NRTI, Unknown	Unknown	K20R, V60I, D67N, K70R, A98S, K102Q, I135T, K166IK, M184V, R211K, D218E, K219Q, L228H, K281R, E291D, T296S, E297K, I329L, G333E, F346Y, M357TM, R358KR, G359RG, T386IT
MM-211036629	MM-2110366291		NRTI, Unknown	Unknown	I31L, V60I, V75I, A98G, I132L, I142V, Y181C, M184V, I202V, R211K, T215F, V245Q, I326L, E328D, V365I, T369V, A376S, T377Q, K390R
MM-211236629	MM-2112366291		NRTI, Unknown	Unknown	P4S, E6D, E36QE, M41L, K43Q, E44D, D67N, L74I, A98G, K101QK, K103NK, V118I, S162C, V179I, Y181C, G190A, G196E, I202V, L210W, T215Y, K219N, Q278H, I293VI, E297QE, K347EK, G359S, A371V
MM-211536825	MM-2115368251		NRTI, Unknown	Unknown	K20R, V35M, T39A, M41L, N54I, D67N, K70R, L100I, K103N, D123E, I135T, E169D, D177E, T200E, L210W, T215Y, D218E, K219Q, E248D, A288S, P294Q, L325I, E328DE, R358K, G359S, A371V, A376S, K390R
MM-212736523	MM-2127365231		NRTI, Unknown	Unknown	K49R, S68G, M184V, I293V, G359S, K366R
MM-212836693	MM-2128366931		NRTI, Unknown	Unknown	P4S, E6KE, D67N, K70R, G93EG, K101QK, K122EK, I135MI, M184V, T200AT, E204D, D218E, K219Q, T286A, E297AE, K311RK, V317MV, S322T, D324E, I329L, G352AG, R356K, A360V, K388RK
MM-213736551	MM-2137365511		NRTI, Unknown	Unknown	V35I, K70R, R83K, I135V, M184V, Q197P, V245E, I293V, R356K, G359S, A360T, A371V
MM-214336565	MM-2143365651		NRTI, Unknown	Unknown	D67N, K70R, D123E, G190A, G196S, R211T, T215F, K219Q, L283I, I293V, E312Q, D324E, R356K, M357T, A376S, S379C, V381I, K390R
MM-214536734	MM-2145367341		NRTI, Unknown	Unknown	V35T, I135T, M184V, E248N, Q278H, T286A, S322L, T377Q, S379C, K390R, A400S
MM-214936566	MM-2149365661		NRTI, Unknown	Unknown	T7ST, M16V, K20R, T39AT, M41L, K43Q, E44D, A62VA, D67N, T69D, R83K, V118I, K122EK, E138A, K166R, G196E, Q207E, H208Y, L210W, R211K, T215Y, Q278H, T286A, T296S, E297K, I329L, Q334HQ, G359S, T369V, A376V, T386A
MM-216636574	MM-2166365741		NRTI, Unknown	Unknown	I135TI, K166RK, M184V, R211K, V276IV, V292I, I293V, S322T, P345Q, K366R, A400S

MM-223536769	MM-2235367691	NRTI, Unknown	Unknown	M16VM, K32RK, V35I, M41L, R83K, K103N, D177E, M184V, L210W, R211K, T215Y, T286A, E297R, I329V, Q334E, M357T, A371V, A376S
MM-223936608	MM-2239366081	NRTI, Unknown	Unknown	K103N, I142V, K166I, M184V, V189I, T200A, R211K, Q278H, I293V, K311R, Q334A, A376V, T386A
MM-224736507	MM-2247365071	NRTI, Unknown	Unknown	K103NK, D123E, I135M, M184V, Y188FLY, T200A, R211K, K238R, T286A, E297R, P313T, Q334N, G335S, A371V, I375A, A376S, T377L, K390R
MM-225236676	MM-2252366761	NRTI, Unknown	Unknown	K20R, D67T, T69N, K70R, K103N, I135T, S162A, Y181C, T215F, K219E, L228R, M230L, K238N, A288S, I293V, V317A, S322T, M357T, A360V
MM-228136683	MM-2281366831	NRTI, Unknown	Unknown	V35R, D67N, K70R, K101Q, D123E, I135T, V179I, M184V, T200I, Q207E, V245E, Q258KQ, I293V, E297K, K311R, I329V, G335D, R356K, M357K
MM-233136578	MM-2331365781	NRTI, Unknown	Unknown	K103RK, L109M, I142V, S162C, Q174H, V179D, M184V, T200A, Q207E, R211K, M230L, K238T, V245E, I274VI, V292I, E297RK, K311R, D324P, Q334Y, Y342F, R358K, A360T
MM-234036769	MM-2340367691	NRTI, Unknown	Unknown	E6D, V60I, D67N, T69D, K70R, R83K, A98GA, D123E, I135MI, I178LM, V179IV, M184V, I195LI, G196E, R211K, T215I, K219EQ, R284KR, E297Q, G335SG, A360TA, A376S, V381I, K390R
MM-234736810	MM-2347368101	NRTI, Unknown	Unknown	K43R, T69N, K70R, K166R, V245M, V317A, S322T
MM-235036860	MM-2350368601	NRTI, Unknown	Unknown	E28G, V35I, K70R, K101E, K103N, D177E, M184V, R211K, E297A, G333E, N348I, M357T, S379G, T386V
MM-237036579	MM-2370365791	NRTI, Unknown	Unknown	V35I, M41L, K43Q, E44D, D67N, T69D, R83K, K104RK, I167VI, E169D, D177E, I178L, V179I, M184V, G196EG, E203QK, Q207DE, H208YH, L210W, R211K, T215Y, E291KE, E297K, D324E, G359S, A371V, K390R
MM-237236768	MM-2372367681	NRTI, Unknown	Unknown	K13R, S162C, P170LP, M184V, Q207HQ, R284KR, I293V, E297K, D324ED, I341L, N348I, M357V, A360VA, K390R
MM-237536664	MM-2375366641	NRTI, Unknown	Unknown	T27S, V35LM, K43TNK, K49R, D67N, K70R, D123ED, V179IV, M184V, T200AT, Q207E, D218E, K219Q, D250E, Q334C, M357T, A371T, K385R
MM-241036565	MM-2410365651	NRTI, Unknown	Unknown	M41L, K43Q, V60I, K101Q, I135T, I142T, T165I, Y181CY, G190A, L210W, R211K, T215Y,

					K223Q, L228R, Q278E, L283I, A288T, V292I, I293V, E297K, I329L, Q334P, R356K, G359S, K390R, I393M
MM-241336767	MM-2413367671		NRTI, Unknown	Unknown	S48T, D67N, K70R, D121H, P176LP, D177ED, I178LMI, M184V, K219Q, L228H, V245MVI, A272T, I293V, E297A, G333EG, Q334CY, T338S, F346Y, R356KR, A360T, K390R
MM-242036622	MM-2420366221		NRTI, Unknown	Unknown	V35I, T39K, M41L, K43E, L74V, K102RK, K103S, V179I, M184V, G190A, T200A, R211S, T215Y, K249Q, L283I, A288WSGA, V292I, I293V, E297A, P313SP, V317A, G333E, T338S, R356KR, M357T, T369V, K390R, E399D
MM-242436677	MM-2424366771		NRTI, Unknown	Unknown	D67N, K70R, D123E, S162C, D177E, M184V, R211K, T215F, K219E, V245E, E248YD, T286IT, E297K, G333E, E344D, P345Q, N348I, A360VA, T377R, K390R
MM-242736682	MM-2427366821		NRTI, Unknown	Unknown	M41L, D86E, D121Y, D123E, M184V, H208F, L210W, R211K, T215Y, H221Y, I293V, E297V, G333D, R358KR, G359S
MM-245436780	MM-2454367801		NRTI, Unknown	Unknown	M41L, K43E, E44A, L74I, R83K, K103N, I135L, M184V, G190A, G196E, T200A, T215Y, V245M, Q334N, K390R
MM-245836636	MM-2458366361		NRTI, Unknown	Unknown	R83K, K102M, K103N, D123E, D177G, Y188L, H208YH, R211K, T215Y, V245E, K275R, Q278N, K281R, V292I, I293V, E297K, I329L, G335S, M357T, T386I, K390R
MM-253936747	MM-2539367471		NRTI, Unknown	Unknown	V35I, T39A, M41L, K43EK, V60I, D67N, T69E, K70R, K102W, V118I, D123E, I178M, Y188L, Q197HQ, Q207A, H208YH, L210W, R211K, T215F, D218E, K219Q, L228H, Q242H, V245T, A272VA, K277T, L283I, I293V, P294Q, E298A, I341F, N348I, R356K, A376S, T377R, K390R
MM-254336620	MM-2543366201		NRTI, Unknown	Unknown	K13R, T39A, M41L, K49R, V60I, D67N, T69D, K82R, A98S, K103N, V108I, D123E, Y144FY, A158S, S162D, K166R, V179I, M184V, I202V, L210W, T215Y, K238T, V245M, Q278H, I293V, P294T, G335S, R356K, A360T, A371V, K390R
MM-254436796	MM-2544367961		NRTI, Unknown	Unknown	K20R, V35M, M41L, D67N, V118I, D121H, S162N, K166R, I178L, E203K, Q207E, T215F, K219R, K223E, V245T, Q278E, L283I, I293V, V317A, Q334L, R356K, K390R
MM-	MM-2620366231		NRTI,	Unknown	M41L, D67N, T69D, V90I, I142V,

262036623			Unknown		S162N, M184V, G196E, E204D, T215Y, K281R, D324E, A327V, M357T, R358K, A360T, K366R, T386I
MM-270236656	MM-2702366561		NRTI, Unknown	Unknown	K20R, T39K, M41L, K43E, K49R, M184V, L210W, T215Y, V245K, T286A, P294Q, M357V, A371V, K390R
MM-275036759	MM-2750367591		NRTI, Unknown	Unknown	K13RK, K32RK, V35AV, D67N, K70R, K101P, K103N, D121HY, E138QE, I142VI, S162NS, V179I, M184V, T200A, R211K, F214LF, K219Q, L228H, T286A, I293V, I326V, Q334L, N348I, A355TA, M357T, K385R, T386I, K390R, E399G
MM-275436608	MM-2754366081		NRTI, Unknown	Unknown	M41L, D67N, K70R, K102Q, V118I, D177N, V179E, M184V, T200A, T215Y, K219E, E297K, L301I, G333E, Q334H, T351A, K390R, E399D, A400S
MM-275836789	MM-2758367891		NRTI, Unknown	Unknown	M41L, K43QK, K101EK, V118I, K122EK, D123E, A158S, I178M, Y188L, L210W, T215Y, V245T, Y271HY, I293V, E297A, V317A, N348IN, R356K, R358K, K366R
MM-276336663	MM-2763366631		NRTI, Unknown	Unknown	V35M, T39A, M41L, K43Q, S68G, L100I, K103N, I135T, K166R, D177N, E194K, G196E, Q207E, L210W, R211K, T215Y, E248D, A288S, I293V, E297Q, V317A, G359S, A371T
MM-304036676	MM-3040366761		NRTI, Unknown	Unknown	D67N, K70R, M184V, R211K, F214LF, K219Q, T286A, A288S, I293V, E297K, K311R, P313TP, G333DE, Q334HQNK, M357TMI, V365IV, A371V, K390R, I393M
MM-307236752	MM-3072367521		NRTI, Unknown	Unknown	V35LV, T39AT, M41L, K64NK, D67N, K70R, L74VL, L100VL, V118IV, K122EK, D123ND, I135V, I142VI, S162GDSN, M164RM, D177ED, V179IV, M184V, G190AG, T200AT, I202VI, Q207EQ, T215Y, D218ED, K219HQ, P243S, V245E, V317A, I329V, K350RK, R358K, A371V, I393TI, E399N, A400S
MM-307336762	MM-3073367621		NRTI, Unknown	Unknown	E6D, V35I, M41L, S68G, R83K, V106A, M184V, G196E, T200A, Q207E, T215Y, F227L, R284K, I329V, Q334N, A360I, A376S, T377R, E399D
MM-315936643	MM-3159366431		NRTI, Unknown	Unknown	K20R, V60I, D67N, T69N, K70R, E138A, T139I, M184V, T200A, Q207E, K219Q, A272S, I293V, E297A, E298D, V317A, I329L, T338S, E344D, A355T, V365I, A376S, V381I, K390R
MM-335536593	MM-3355365931		NRTI, Unknown	Unknown	M41L, K43N, E44D, D67N, T69D, K103N, V108I, D123E,

					D177E, M184V, E203K, Q207E, H208Y, R211K, T215Y, K223E, L228H, V245T, A288T, Q334L, R358K, K390R, E399G
MM-339836601	MM-3398366011	NRTI, Unknown	Unknown	M41L, V106I, D123E, I142V, S162C, M184V, T215Y, V245T, K281R, E297K, R307K, M357T	
MM-340736685	MM-3407366851	NRTI, Unknown	Unknown	K20R, V118I, I135T, T165I, M184V, E203D, R211K, E248D, V276I, C280S, A288S, I293V, I326V, G333E, Q334H, N348I, V365I, T377R, T386I, I393V, E399D	
MM-348536843	MM-3485368431	NRTI, Unknown	Unknown	D67N, K70R, V75I, D121H, I135T, S162C, D177E, M184V, D218E, K219Q, M230RM, V245E, G359S, T377M	
MM-352136759	MM-3521367591	NRTI, Unknown	Unknown	V35T, I135T, I142T, M184V, R211K, V245K, I293V, D324E, I329V, G333E, T377R, S379C, K395R, E399D	
MM-357636670	MM-3576366701	NRTI, Unknown	Unknown	M41L, A98S, K101DEHQ, D121Y, I135VI, I142VI, D177E, M184V, G190A, Q207E, R211K, T215FY, D237E, T286A, M357T, R358KR, T377Q, T386AVTP , K395R, E399D, A400TA	
MM-371436656	MM-3714366561	NRTI, Unknown	Unknown	T39AT, M41L, K43Q, V60I, S68G, V106MVI, V118I, D123E, I135T, D177E, V179E, I195T, T200A, E203DE, Q207K, L210W, R211KR, T215Y, A288S, E297KE, E312H, I326VI, G333DG, N348IN, M357T, G359SG	
MM-377036830	MM-3770368301	NRTI, Unknown	Unknown	V35I, A62VA, V108AV, I135T, I142V, M184V, G196E, T200K, I202V, R211G, V241IV, V245M, Q278E, I293VI, P294TP, E297R, R358KR, T369A, K390R	
MM-380536770	MM-3805367701	NRTI, Unknown	Unknown	M41L, A98G, K103N, V108I, D123ND, I135M, K166R, M184V, T215Y, H221Y, I326V, Q334P, G359SG, A371V, K390R	
MM-381236634	MM-3812366341	NRTI, Unknown	Unknown	T69S_SS, K70R, A98G, V118I, I135T, I142V, S162C, M184V, Q207E, R211K, T215F, I329L, K395R, E399D	
MM-381836665	MM-3818366651	NRTI, Unknown	Unknown	D67N, K70R, I178L, M184V, I195L, T200I, V245K, M357T, A400L	
MM-382436846	MM-3824368461	NRTI, Unknown	Unknown	V35T, T39A, M41L, K43E, D67N, R83K, V118IV, M184V, E203KE, Q207E, H208YH, R211K, T215Y, E248D, E297K, I326V, Q334E, N348I, G359S, K366R	
MM-397836845	MM-3978368451	NRTI, Unknown	Unknown	T39AT, M41L, L74V, A98G, K102QK, K103N, N137S, I142V, M184V, L210W, T215Y, L228N,	

					V245E, A272SA, Q278H, I293V, G359S, T369V, T377R, T386I, K390R
MM-400936780	MM-4009367801		NRTI, Unknown	Unknown	K20R, K49R, V60IV, R83KR, A98S, K103N, I135L, E138AE, S162GDSN, Y181CY, M184V, L210WL, R211K, T215Y, K238T, E291D, E297KE, K311R, S322T, D324E, N348I, V365IV, K390R, E399G, A400S
MM-401136805	MM-4011368051		NRTI, Unknown	Unknown	K20R, I37L, K46Q, K64R, T69A, K70R, I135T, E138GE, M184V, R211K, T286A, I293V, D324E, R358K, A371V, S379G, T386V
MM-401436668	MM-4014366681		NRTI, Unknown	Unknown	M41L, K43RK, T69AT, I135T, D177E, Y188L, T200I, E203A, Q207E, R211K, T215Y, K281R, T286A, I326VI, G333E, A360T, K390R
MM-405536616	MM-4055366161		NRTI, Unknown	Unknown	K20R, L74V, D86E, K103N, V108I, K122P, I135T, S162C, D177E, M184V, R211K, E297A, Q334E, N348I, A360T, K366R, A400TA
MM-409136768	MM-4091367681		NRTI, Unknown	Unknown	I5TI, V35I, T39AT, M41L, V60I, D67N, K70R, K103S, G190SGR, G196E, T200I, E204Q, Q207D, R211KR, T215Y, K219Q, V245K, I293V, E297R, L301I, Q334E, N348I, R358KR, A360VI, T377R, K390R, E399D
MM-409936656	MM-4099366561		NRTI, Unknown	Unknown	V35T, V60I, D67N, K70R, K103N, I135T, K166R, I178LI, M184V, I202VI, T215I, K219Q, K238T, T286A, E297K, I326MR, F346C, N348IN, A360T, T386I
MM-410036833	MM-4100368331		NRTI, Unknown	Unknown	R83K, K101Q, I135T, S162C, M184V, Q207E, T215Y, Q278N, T286AT, A288T, D324E, R358KR, T377M
MM-410836850	MM-4108368501		NRTI, Unknown	Unknown	T39AT, M41L, V60I, D67N, K70R, V118I, D123E, I135T, S162A, K173T, Q207A, R211K, T215F, K219Q, V245T, E248V, I293V, D324E, G333E, Q334Y, N348I, G359S, T377M, T386IT
MM-413336669	MM-4133366691		NRTI, Unknown	Unknown	K22RK, V35T, T39AT, M41L, L74V, A98S, L100I, K103N, M184V, T215Y, H221Y, V245E, T286A, E297K, L301M, I329L, M357T, T369V, K385R, K390R
MM-417736648	MM-4177366481		NRTI, Unknown	Unknown	I5VI, E6D, K20R, A98GA, V118IV, I135TI, M184V, Q197E, T200I, R211K, G213RG, L279IL, E297QK, K311RK, G359S, A360T, A371V, T377L
MM-418436843	MM-4184368431		NRTI, Unknown	Unknown	V35I, E44K, R83K, I135V, R172K, M184V, G196E, R211G, K281R, T286A, E297K, E298K, I329L, F346Y, K388R
MM-	MM-4337368031		NRTI,	Unknown	K49RK, K103N, V108IV, D123E,

433736803			Unknown		I135L, D177E, I178M, M184V, E204K, Q207E, P225HP, V245K, Q278N, T286A, N306DN, I329VI, G335DGSN, R356K, M357T, G359SG, I375LI, E396DE
MM-434636664	MM-4346366641		NRTI, Unknown	Unknown	K20R, M41L, E44D, A98G, K102Q, D123E, I135M, V179I, M184V, G190A, Q207E, T215Y, T286A, E297K, I329LI, A360T, V365IV
MM-435236677	MM-4352366771		NRTI, Unknown	Unknown	D67N, T69N, K70R, K103N, V108IV, K122Q, I135T, D177E, M184V, I202V, Q207E, K219HQ, H221YH, L283I, T286A, I293V, L310I, Q334D, G335S, N348IN, M357T, K390R
MM-437836825	MM-4378368251		NRTI, Unknown	Unknown	K20R, K43E, K49R, R83K, I135T, S163T, T165I, M184V, T286A, V292I, K311R, R356KR, T369AVTI, A376TI, T386AT
MM-442236689	MM-4422366891		NRTI, Unknown	Unknown	K64NK, D67N, K70R, K104RK, S162A, T200AV, T215FY, D218E, K219Q, V245MR, V292IV, I293V, E297K, Q334E, Y339FY, Q343HQ, N348IN, R356KR, M357RM, A360VA, D364ED, A371VA, I375VI, A376SA, T377IN, E399DE, A400TA
MM-446136684	MM-4461366841		NRTI, Unknown	Unknown	V35I, A98S, V106A, D123E, A158S, I178V, V245E, E291D, R307K, S322T, I329L, N348I
MM-504336614	MM-5043366141		NRTI, Unknown	Unknown	K20R, D67G, T69N, K70R, R83K, D123E, S162C, K173Q, Q207E, D218E, K219Q, L228R, I293V, E297Q, G333E, G359S
MM-504636803	MM-5046368031		NRTI, Unknown	Unknown	M41L, D123N, I135V, S162C, E169D, T200I, T215Y, I293V, I326V, Q334L, N348I, R356K, A360T
MM-504836838	MM-5048368381		NRTI, Unknown	Unknown	D67N, K70R, A98G, K166R, R211K, T286A, I293V, R356K, K366R, Q394L
MM-520536598	MM-5205365981		NRTI, Unknown	Unknown	V21IV, V35T, T39E, S48T, A62V, S68K, V75I, V108I, F116Y, D123G, Q151M, K173A, Q174NK, D177E, M184V, G190A, T200A, Q207E, R211KR, V245Q, E291D, V292IV, I293V, D324GD, Q334CYSN, G335D, R356K, G359T, T377L, K390R, A400I
MM-521936684	MM-5219366841		NRTI, Unknown	Unknown	V21IV, A62VA, K65R, S68GS, T69IT, V75AVTI, V90IV, K101E, K104N, V108IV, Y181CY, G190A, R211K, K219QRK, H221YH, D237N, V245Q, I293VI, A304VA, E328D, A376VA, V381IV, K385RK, K390RK, E399D
MM-	MM-5246367961		NRTI,	Unknown	M41L, K43EK, D67N, K70R,

524636796			Unknown		L74VL, L100IL, K103N, D123E, S162A, D177E, G190AG, I202V, R211S, T215F, K219H, V254AV, T286A, I293V, E312A, Q334Y, G335SG, R358K, V365IV, A371V, A400V
MM-528836643	MM-5288366431		NRTI, Unknown	Unknown	P1H, E6D, N54I, D67N, K70R, L74I, W88F, A98S, K101P, K103N, G196E, T200A, E203D, T215F, D218E, K219W, A288S, T296S, E297R, L301M, K311R, S322T, I329VI, Q334E, N348I, R356K, T386I, K390R, A400S
MM-532836557	MM-5328365571		NRTI, Unknown	Unknown	E6D, V35I, M41L, K43E, E44AE, V60I, D67N, T69D, K82R, R83K, A98G, K101EK, K103NK, V118I, I135TI, M184V, V189I, G190AT, I202V, Q207E, L210W, T215Y, K219R, V245Q, E297R, R356K, G359S, A360T, K390R
MM-533336761	MM-5333367611		NRTI, Unknown	Unknown	E36KE, M41L, D67ND, V106A, I142V, Q207E, T215Y, V245T, K249Q, T286A, E297R, V317A, D324P, G335D, R356K, K390R
MM-533936634	MM-5339366341		NRTI, Unknown	Unknown	V60I, I135L, M184V, T200AT, Q278H, I293V, E297K, V317AV, D324E, I329L, E399DE
MM-537136600	MM-5371366001		NRTI, Unknown	Unknown	M41L, L74V, K101Q, I135T, I142M, M184V, G190S, R211K, T215Y, E248D, T286A, E297K, E312G, V317A, S322T, I329V, M357T
MM-537636817	MM-5376368171		NRTI, Unknown	Unknown	K20R, D67N, T69N, K70R, I135V, S162A, M184V, R211K, K219Q, L228H, T286A, K347R, R356K, M357L, A360V, A376S, K390R
MM-553536629	MM-5535366291		NRTI, Unknown	Unknown	V8IV, K20R, V35EV, T39AT, M41L, E44DE, V60I, K64RK, K103N, I135LI, R211K, T215F, K275R, V292I, I293V, D324E, Q334H, P345LP, R358KR, A360T, K366R, T369V, E370DE, A371V, V372I, I375V, A376S, I382LI
MM-553936658	MM-5539366581		NRTI, Unknown	Unknown	K70R, I135T, M184V, T200A, E204D, I293V, P294T, M357T, G359S, K366R, A376S, K390R
MM-554136844	MM-5541368441		NRTI, Unknown	Unknown	M41L, V60I, D67N, K70R, K82R, R83K, V106L, V118IV, D123E, R172K, D177E, Y188L, L210W, R211K, T215Y, K219E, T286A, G333E, N348TN, G359S, A371V, K390R
MM-557436620	MM-5574366201		NRTI, Unknown	Unknown	M41L, K43RK, E44D, D67G, S68G, K70R, L74IL, V75SLAV, V90IV, V106IV, V118IV, I135V, V179E, M184V, Y188LHFY, G190SG, I195TI, T200AE, E203DENK, L210W, T215Y, K219DE, K223E, F227YF, L228HL, Q242HQ, A272S,

					K275Q, V276T, L283I, V292I, I293V, V317A, D324E, E344D, P345T, R356K, G359S, A376SA, T377M, K395R, E399D
MM-557836853	MM-5578368531		NRTI, Unknown	Unknown	V35T, E40D, M41L, K49R, V60I, D67ND, I135T, S162A, D177E, E203K, E204D, Q207E, T215Y, V241I, V245Q, D250E, A272S, T286A, I293V, G359S, T377Q, K390R
MM-558036798	MM-5580367981		NRTI, Unknown	Unknown	V35M, M41L, S68G, T69N, I135T, M184V, G196E, E203D, T215Y, V245T, T286P, I293V, E297A, I326V, I329L, S379C
MM-562136822	MM-5621368221		NRTI, Unknown	Unknown	E6K, A62V, V75I, F77L, K103N, V108I, F116Y, V118I, D123E, Q151M, Q174H, I202V, R211K, K281R, T286A, P294T, E297K, R356K, T369V, K385R
MM-562436682	MM-5624366821		NRTI, Unknown	Unknown	K49R, D67N, T69N, K70R, V90I, L100I, K103N, D113E, V118I, D123E, I135T, S162N, K166E, E169R, K173E, I195L, I202V, T215F, K219Q, V292I, P294T, E297K, N348I, A360V
MM-569736614	MM-5697366141		NRTI, Unknown	Unknown	M41L, K103NK, V108IV, I135V, T139MR, Y181CY, M184V, L210W, R211K, T215Y, L228HL, V245E, S251H, V292IV, I293V, P294TP, E297AE, G333EG, N348IN, R356K, A360V

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